CLAIM AMENDMENTS

64. (previously presented) A method for decoding an encoded signal representing a plurality of encoded channel signals, one or more least signficant bits and information representing a gain coefficient, wherein the method comprises:

receiving the encoded signal and obtaining therefrom the plurality of channel signals, the one or more least significant bits and the gain coefficient;

generating a modified first channel signal by applying a first primitive matrix quantiser to a first channel signal in said plurality of channel signals, wherein the first channel signal is multiplied by a gain coefficient; and

combining the multiplied first channel signal with the one or more least significant bits.

65. (previously presented) The method according to claim 64 wherein the first primitive matrix quantizer forms a linear combination of the plurality of channel signals to generate the modified first channel signal.

66. (previously presented) The method according to claim 64, wherein the combining comprises adding.

67. (previously presented) The method according to claim 64 that applies an inverse matrix transformation to the plurality of channel signals using a cascade of primitive matrix quantisers, wherein the cascade of primitive matrix quantisers comprises the first primitive matrix quantiser.

68. (previously presented) The method according to claim 64 wherein the gain coefficient is not equal to an integer power of two.

69. (previously presented) A method for encoding a plurality of channel signals comprising:

generating a modified first channel signal by applying a first primitive matrix quantiser to a first channel signal in said plurality of channel signals, wherein the first channel signal is multiplied by the gain coefficient;

recovering one or more least significant bits that result from the multiplying that exceed a number of bits allocated to the first channel signal; and

assembling the one or more least significant bits, the multiplied modified first channel signal and a parameter representing the gain coefficient into an encoded signal.

70. (previously presented) The method according to claim 69 wherein the first primitive matrix quantizer forms a linear combination of the plurality of channel signals to generate the modified first channel signal.

71. (previously presented) The method according to claim 69 that applies a matrix transformation to the plurality of channel signals using a cascade of primitive matrix quantisers, wherein the cascade of primitive matrix quantisers comprises the first primitive matrix quantiser.

72. (previously presented) The method according to claim 69 wherein the gain coefficient is not equal to an integer power of two.

73. (previously presented) An apparatus for decoding an encoded signal representing a plurality of encoded channel signals, one or more least signficant bits and information representing a gain coefficient, wherein the apparatus comprises:

means for receiving the encoded signal and obtaining therefrom the plurality of channel signals, the one or more least significant bits and the gain coefficient;

means for generating a modified first channel signal by applying a first primitive matrix quantiser to a first channel signal in said plurality of channel signals, wherein the first channel signal is multiplied by a gain coefficient; and

means for combining the multiplied first channel signal with the one or more least significant bits.

74. (previously presented) The apparatus according to claim 73 wherein the first primitive matrix quantizer forms a linear combination of the plurality of channel signals to generate the modified first channel signal.

75. (previously presented) The apparatus according to claim 73, wherein the combining comprises adding.

76. (previously presented) The apparatus according to claim 73 that comprises a means for applying an inverse matrix transformation to the plurality of channel signals using a cascade of primitive matrix quantisers, wherein the cascade of primitive matrix quantisers comprises the first primitive matrix quantiser.

77. (previously presented) The apparatus according to claim 73 wherein the gain coefficient is not equal to an integer power of two.

78. (previously presented) An apparatus for encoding a plurality of channel signals comprising:

means for generating a modified first channel signal by applying a first primitive matrix quantiser to a first channel signal in said plurality of channel signals, wherein the first channel signal is multiplied by the gain coefficient;

means for recovering one or more least significant bits that result from the multiplying that exceed a number of bits allocated to the first channel signal; and

means for assembling the one or more least significant bits, the multiplied modified first channel signal and a parameter representing the gain coefficient into an encoded signal.

79. (previously presented) The apparatus according to claim 78 wherein the first primitive matrix quantizer forms a linear combination of the plurality of channel signals to generate the modified first channel signal.

80. (previously presented) The apparatus according to claim 78 that comprises a means for applying a matrix transformation to the plurality of channel signals using a cascade of primitive matrix quantisers, wherein the cascade of primitive matrix quantisers comprises the first primitive matrix quantiser.

81. (previously presented) The apparatus according to claim 78 wherein the gain coefficient is not equal to an integer power of two.

82. (previously presented) A medium that conveys a program of instructions that is executable by a device to perform a method for decoding an encoded signal representing a plurality of encoded channel signals, one or more least signficant bits and information representing a gain coefficient, wherein the method comprises:

receiving the encoded signal and obtaining therefrom the plurality of channel signals, the one or more least significant bits and the gain coefficient;

generating a modified first channel signal by applying a first primitive matrix quantiser to a first channel signal in said plurality of channel signals, wherein the first channel signal is multiplied by a gain coefficient; and

combining the multiplied first channel signal with the one or more least significant bits.

83. (previously presented) The medium according to claim 82 wherein the first primitive matrix quantizer forms a linear combination of the plurality of channel signals to generate the modified first channel signal.

84. (previously presented) The medium according to claim 82, wherein the combining comprises adding.

85. (previously presented) The medium according to claim 82 that applies an inverse matrix transformation to the plurality of channel signals using a cascade of primitive matrix quantisers, wherein the cascade of primitive matrix quantisers comprises the first primitive matrix quantiser.

86. (previously presented) The medium according to claim 82 wherein the gain coefficient is not equal to an integer power of two.

87. (previously presented) A medium that conveys a program of instructions that is executable by a device to perform a method for encoding a plurality of channel signals, wherein the method comprises:

generating a modified first channel signal by applying a first primitive matrix quantiser to a first channel signal in said plurality of channel signals, wherein the first channel signal is multiplied by the gain coefficient;

recovering one or more least significant bits that result from the multiplying that exceed a number of bits allocated to the first channel signal; and

assembling the one or more least significant bits, the multiplied modified first channel signal and a parameter representing the gain coefficient into an encoded signal.

88. (previously presented) The medium according to claim 87 wherein the first primitive matrix quantizer forms a linear combination of the plurality of channel signals to generate the modified first channel signal.

89. (previously presented) The medium according to claim 87 that applies a matrix transformation to the plurality of channel signals using a cascade of primitive matrix quantisers, wherein the cascade of primitive matrix quantisers comprises the first primitive matrix quantiser.

90. (previously presented) The medium according to claim 87 wherein the gain coefficient is not equal to an integer power of two.

91. (previously presented) A method for encoding a plurality of channel signals comprising:

receiving the plurality of channel signals and a downmix specification;

generating an encoded signal by applying a matrix to the plurality of channel signals, wherein the matrix is implemented by a cascade of primitive matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs, and the cascade of primitive matrix quantisers comprises:

a first primitive matrix quantiser having coefficients such that an output of the first primitive matrix quantiser is a first downmix channel signal in the first substream that corresponds to a first channel of the downmix specification multiplied by a scaling factor; and

a second primitive matrix quantiser following the first primitive matrix quantiser in the cascade of primitive matrix quantisers and having a coefficient multiplying the first downmix channel signal that is substantially zero; and

assembling a representation of the plurality of substreams of encoded information into an output signal.

92. (previously presented) The method according to claim 91, wherein the first primitive matrix quantiser modifies a channel signal in the plurality of channel signals that corresponds to a coefficient in the downmix specification that is substantially the largest coefficient in a specification for the first channel of the downmix specification.

93. (previously presented) A method for encoding a plurality of channel signals comprising:

receiving the plurality of channel signals and a downmix specification;

generating an encoded signal by applying a matrix to the plurality of channel signals, wherein the matrix is implemented by a cascade of primitive matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs, and a portion of the matrix that provides the first substream has rows of coefficients that are substantially orthogonal to one another; and

assembling a representation of the plurality of substreams of encoded information into an output signal.

94. (previously presented) The method according to claim 93, wherein a first primitive matrix quantiser in the cascade of primitive matrix quantisers modifies a channel signal in the plurality of channel signals that corresponds to a coefficient in the downmix specification that is substantially the largest coefficient in a specification for a first channel of the downmix specification.

95. (previously presented) A method for encoding a plurality of channel signals comprising:

receiving the plurality of channel signals and a downmix specification;

generating an encoded signal by applying a matrix to the plurality of channel signals, wherein the matrix is implemented by a cascade of primitive matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs, and the first substream comprises two or more channel signals in the downmix specification that have a cross-correlation with one another that is substantially equal to zero; and

assembling a representation of the plurality of substreams of encoded information into an output signal.

96. (previously presented) The method according to claim 95, wherein a first primitive matrix quantiser in the cascade of primitive matrix quantisers modifies a channel signal in the plurality of channel signals that corresponds to a coefficient in the downmix specification that is substantially the largest coefficient in a specification for a first channel of the downmix specification.

97. (previously presented) The method according to claim 95, wherein the output signal has a data rate and the cross-correlation is given a spectral weighting that emphasises frequencies with greater contributions to the data rate.

98. (previously presented) The method according to claim 95, wherein the cross-correlation is given a spectral weighting as defined by a filter with a transfer function equal to $(1 - z^{-1})^n$, where $n = 1, 2$ or 3.

99. (previously presented) An apparatus for encoding a plurality of channel signals comprising:

means for receiving the plurality of channel signals and a downmix specification;

means for generating an encoded signal by applying a matrix to the plurality of channel signals, wherein the matrix is implemented by a cascade of primitive matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs, and the cascade of primitive matrix quantisers comprises:

a first primitive matrix quantiser having coefficients such that an output of the first primitive matrix quantiser is a first downmix channel signal in the first substream that corresponds to a first channel of the downmix specification multiplied by a scaling factor; and

a second primitive matrix quantiser following the first primitive matrix quantiser in the cascade of primitive matrix quantisers and having a coefficient multiplying the first downmix channel signal that is substantially zero; and

means for assembling a representation of the plurality of substreams of encoded information into an output signal.

100. (previously presented) The apparatus according to claim 99, wherein the first primitive matrix quantiser modifies a channel signal in the plurality of channel signals that corresponds to a coefficient in the downmix specification that is substantially the largest coefficient in a specification for the first channel of the downmix specification.

101. (previously presented) An apparatus for encoding a plurality of channel signals comprising:

means for receiving the plurality of channel signals and a downmix specification;

means for generating an encoded signal by applying a matrix to the plurality of channel signals, wherein the matrix is implemented by a cascade of primitive matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs, and a portion of the matrix that provides the first substream has rows of coefficients that are substantially orthogonal to one another; and

means for assembling a representation of the plurality of substreams of encoded information into an output signal.

102. (previously presented) The apparatus according to claim 101, wherein a first primitive matrix quantiser in the cascade of primitive matrix quantisers modifies a channel signal in the plurality of channel signals that corresponds to a coefficient in the downmix specification that is

substantially the largest coefficient in a specification for a first channel of the downmix specification.

103. (previously presented) An apparatus for encoding a plurality of channel signals comprising:

means for receiving the plurality of channel signals and a downmix specification;

means for generating an encoded signal by applying a matrix to the plurality of channel signals, wherein the matrix is implemented by a cascade of primitive matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs, and the first substream comprises two or more channel signals in the downmix specification that have a cross-correlation with one another that is substantially equal to zero; and

means for assembling a representation of the plurality of substreams of encoded information into an output signal.

104. (previously presented) The apparatus according to claim 103, wherein a first primitive matrix quantiser in the cascade of primitive matrix quantisers modifies a channel signal in the plurality of channel signals that corresponds to a coefficient in the downmix specification that is substantially the largest coefficient in a specification for a first channel of the downmix specification.

105. (previously presented) The apparatus according to claim 103, wherein the output signal has a data rate and the cross-correlation is given a spectral weighting that emphasises frequencies with greater contributions to the data rate.

106. (previously presented) The apparatus according to claim 103, wherein the cross-correlation is given a spectral weighting as defined by a filter with a transfer function equal to $(1 - z^{-1})^n$, where $n = 1, 2$ or 3.

107. (previously presented) A medium that conveys a program of instructions that is executable by a device to perform a method for encoding a plurality of channel signals, wherein the method comprises:

receiving the plurality of channel signals and a downmix specification;

generating an encoded signal by applying a matrix to the plurality of channel signals, wherein the matrix is implemented by a cascade of primitive matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs, and the cascade of primitive matrix quantisers comprises:

a first primitive matrix quantiser having coefficients such that an output of the first primitive matrix quantiser is a first downmix channel signal in the first substream that corresponds to a first channel of the downmix specification multiplied by a scaling factor; and

a second primitive matrix quantiser following the first primitive matrix quantiser in the cascade of primitive matrix quantisers and having a coefficient multiplying the first downmix channel signal that is substantially zero; and

assembling a representation of the plurality of substreams of encoded information into an output signal.

108. (previously presented) The medium according to claim 107, wherein the first primitive matrix quantiser modifies a channel signal in the plurality of channel signals that corresponds to a coefficient in the downmix specification that is substantially the largest coefficient in a specification for the first channel of the downmix specification.

109. (previously presented) A medium that conveys a program of instructions that is executable by a device to perform a method for encoding a plurality of channel signals, wherein the method comprises:

receiving the plurality of channel signals and a downmix specification;

generating an encoded signal by applying a matrix to the plurality of channel signals, wherein the matrix is implemented by a cascade of primitive matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs, and a portion of the matrix that provides the first substream has rows of coefficients that are substantially orthogonal to one another; and

assembling a representation of the plurality of substreams of encoded information into an output signal.

110. (previously presented) The medium according to claim 109, wherein a first primitive matrix quantiser in the cascade of primitive matrix quantisers modifies a channel signal in the plurality of channel signals that corresponds to a coefficient in the downmix specification that is substantially the largest coefficient in a specification for a first channel of the downmix specification.

111. (previously presented) A medium that conveys a program of instructions that is executable by a device to perform a method for encoding a plurality of channel signals, wherein the method comprises:

receiving the plurality of channel signals and a downmix specification;

generating an encoded signal by applying a matrix to the plurality of channel signals, wherein the matrix is implemented by a cascade of primitive matrix quantisers and has matrix outputs that provide a plurality of substreams of encoded information, a first substream is provided by a strict subset of the matrix outputs, and the first substream comprises two or more channel signals in the downmix specification that have a cross-correlation with one another that is substantially equal to zero; and

assembling a representation of the plurality of substreams of encoded information into an output signal.

112. (previously presented) The medium according to claim 111, wherein a first primitive matrix quantiser in the cascade of primitive matrix quantisers modifies a channel signal in the plurality of channel signals that corresponds to a coefficient in the downmix specification that is substantially the largest coefficient in a specification for a first channel of the downmix specification.

113. (previously presented) The medium according to claim 111, wherein the output signal has a data rate and the cross-correlation is given a spectral weighting that emphasises frequencies with greater contributions to the data rate.

114. (previously presented) The medium according to claim 111, wherein the cross-correlation is given a spectral weighting as defined by a filter with a transfer function equal to $(1 - z^{-1})^n$, where $n = 1, 2$ or 3.

115. (previously presented) In an encoder receiving a plurality of input signals and generating a plurality of output signals, a method of determining one or more of the output signals that comprises:

(i) choosing a first selected input signal; and

(ii) choosing a first linear combination of signals that is a linear combination of at least some of the input signals that excludes the first selected input signal, the first linear combination of signals being chosen to reduce an entropy measure for a difference between the first selected signal and the first linear combination of signals, wherein the difference between the first selected input signal and the first linear combination of signals determines a first output signal in the plurality of output signals;

(iii) choosing a second selected input signal; and

(iv) choosing a second linear combination of signals that is a linear combination of at least some of the input signals that excludes the second selected input signal, the second linear combination of signals being chosen to reduce an entropy measure for a difference between the second selected signal and the second linear combination of signals, wherein the difference between the second selected input signal and the second linear combination of signals determines a second output signal in the plurality of output signals.

116. (previously presented) The method as claimed in claim 115, wherein step (ii) comprises generating a first output signal that represents the difference between the first selected signal and the first linear combination of signals, and step (iv) comprises generating a second output signal that represents the difference between the second selected signal and the second linear combination of signals.

117. (previously presented) The method as claimed in claim 116, wherein the first output signal and the second output signal are generated by primitive matrix quantisers.

118. (previously presented) The method as claimed in claim 115, wherein the second linear combination is a linear combination of signals that excludes the first selected input signal.

119. (previously presented) The method as claimed in claim 115, wherein the second linear combination is a linear combination of signals that includes the first output signal.

120. (previously presented) The method as claimed in claim 115, wherein

step (ii) generates a first output signal definition representing the difference between the first selected input signal and the first linear combination of signals;

step (iv) generates a second output signal definition representing the difference between the second selected input signal and the second linear combination of signals;

and wherein the method comprises:

(v) generating the first output signal from the first output signal definition, and generating the second output signal from the second output signal definition.

121. (previously presented) The method as claimed in claim 120, wherein the first output signal and the second output signal are generated by primitive matrix quantisers.

122. (previously presented) The method as claimed in claim 115 that further comprises determining a set of output signals from which a downmix of the input signals can be recovered, wherein at least one of the first combination and the second combination is a linear combination of signals that includes at least one signal in the set of output signals.

123. (previously presented) The method as claimed in claim 115, wherein steps (i) and (iii) select an input signal for which the absolute magnitudes of the coefficients in the linear combination do not exceed a predetermined limit.

124. (previously presented) The method as claimed in claim 115, wherein step (i) chooses for the first selected input signal that input signal having a smallest measure of energy, and step (iii) chooses for the second selected input signal that input signal other than the first selected input signal having a smallest measure of energy.

125. (previously presented) The method as claimed in claim 115, wherein step (ii) applies a first scaling factor to the difference between the first selected input signal and the first linear combination of other input signals to determine the first output signal, and step (iv) applies a second scaling factor to the difference between the second selected input signal and the second linear combination of other input signals to determine the second output signal.

126. (previously presented) The method as claimed in claim 125, wherein the first scaling factor is equal to +1, –1, +½ or –½ and the second scaling factor is equal to +1, –1, +½ or –½..

127. (previously presented) The method as claimed in claim 125, wherein step (ii) generates additional least significant bits by application of the first scaling factor having a magnitude less than unity and/or step (iv) generates additional least significant bits by application of the second scaling factor having a magnitude less than unity, and at least some of the additional least significant bits are provided in an output signal.

128. (previously presented) The method as claimed in claim 115, wherein the entropy measures are energy.

129. (previously presented) The method as claimed in claim 115, wherein the entropy measures are derived from energy calculated with a spectral weighting emphasizing the frequency bands that contribute more substantially to a data rate of a compressed output stream of the encoder.

130. (previously presented) The method as claimed in claim 115, wherein the entropy measures are derived from energy calculated with a spectral weighting substantially as defined by a digital filter $(1 - z^{-1})^n$, where $n = 1, 2$ or 3.

131. (previously presented) An encoder for receiving a plurality of input signals, generating a plurality of output signals, and determining one or more of the output signals, wherein the encoder comprises:

(i) means for choosing a first selected input signal; and

(ii) means for choosing a first linear combination of signals that is a linear combination of at least some of the input signals that excludes the first selected input signal,

the first linear combination of signals being chosen to reduce an entropy measure for a difference between the first selected signal and the first linear combination of signals, wherein the difference between the first selected input signal and the first linear combination of signals determines a first output signal in the plurality of output signals;

(iii) means for choosing a second selected input signal; and

(iv) means for choosing a second linear combination of signals that is a linear combination of at least some of the input signals that excludes the second selected input signal, the second linear combination of signals being chosen to reduce an entropy measure for a difference between the second selected signal and the second linear combination of signals, wherein the difference between the second selected input signal and the second linear combination of signals determines a second output signal in the plurality of output signals.

132. (previously presented) The encoder as claimed in claim 131, wherein the means for choosing the first linear combination generates a first output signal that represents the difference between the first selected signal and the first linear combination of signals, and the means for choosing the second linear combination generates a second output signal that represents the difference between the second selected signal and the second linear combination of signals.

133. (previously presented) The encoder as claimed in claim 132, wherein the first output signal and the second output signal are generated by primitive matrix quantisers.

134. (previously presented) The encoder as claimed in claim 131, wherein the second linear combination is a linear combination of signals that excludes the first selected input signal.

135. (previously presented) The encoder as claimed in claim 131, wherein the second linear combination is a linear combination of signals that includes the first output signal.

136. (currently amended) The encoder as claimed in claim 131, wherein

the means for choosing the first linear combination generates a first output signal definition representing the difference between the first selected input signal and the first linear combination of signals;

the means for ~~chhosing~~ choosing the second linear combination generates a second output signal definition representing the difference between the second selected input signal and the second linear combination of signals;

and wherein the encoder comprises:

means for generating the first output signal from the first output signal definition, and generating the second output signal from the second output signal definition.

137. (previously presented) The encoder as claimed in claim 136, wherein the first output signal and the second output signal are generated by primitive matrix quantisers.

138. (previously presented) The encoder as claimed in claim 131 that further comprises a means for determining a set of output signals from which a downmix of the input signals can be recovered, wherein at least one of the first combination and the second combination is a linear combination of signals that includes at least one signal in the set of output signals.

139. (previously presented) The encoder as claimed in claim 131, wherein the means for choosing the first selected input signal and the means for choosing the second selected input signal select an input signal for which the absolute magnitudes of the coefficients in the linear combination do not exceed a predetermined limit.

140. (previously presented) The encoder as claimed in claim 131, wherein the means for choosing the first selected input signal chooses for the first selected input signal that input signal having a smallest measure of energy, and the means for choosing the second selected input signal chooses for the second selected input signal that input signal other than the first selected input signal having a smallest measure of energy.

141. (previously presented) The encoder as claimed in claim 131, wherein the means for choosing the first linear combination applies a first scaling factor to the difference between the first selected input signal and the first linear combination of other input signals to determine the first output signal, and the means for choosing the second linear combination applies a second scaling factor to the difference between the second selected input signal and the second linear combination of other input signals to determine the second output signal.

142. (previously presented) The encoder as claimed in claim 141, wherein the first scaling factor is equal to +1, –1, +½ or –½ and the second scaling factor is equal to +1, –1, +½ or –½..

143. (previously presented) The encoder as claimed in claim 141, wherein the means for choosing the first linear combination generates additional least significant bits by application of the first scaling factor having a magnitude less than unity and/or the means for choosing the second linear combination generates additional least significant bits by application of the second scaling factor having a magnitude less than unity, and at least some of the additional least significant bits are provided in an output signal.

144. (previously presented) The encoder as claimed in claim 131, wherein the entropy measures are energy.

145. (previously presented) The encoder as claimed in claim 131, wherein the entropy measures are derived from energy calculated with a spectral weighting emphasizing the frequency bands that contribute more substantially to a data rate of a compressed output stream of the encoder.

146. (previously presented) The encoder as claimed in claim 131, wherein the entropy measures are derived from energy calculated with a spectral weighting substantially as defined by a digital filter $(1 - z^{-1})^n$, where $n = 1$, 2 or 3.

147. (previously presented) A medium that conveys a program of instructions that is executable by a device to perform a method in an encoder receiving a plurality of input signals and generating a plurality of output signals, wherein the method determines one or more of the output signals and comprises:

(i) choosing a first selected input signal; and

(ii) choosing a first linear combination of signals that is a linear combination of at least some of the input signals that excludes the first selected input signal, the first linear combination of signals being chosen to reduce an entropy measure for a difference between the first selected signal and the first linear combination of signals, wherein the difference

between the first selected input signal and the first linear combination of signals determines a first output signal in the plurality of output signals;

(iii) choosing a second selected input signal; and

(iv) choosing a second linear combination of signals that is a linear combination of at least some of the input signals that excludes the second selected input signal, the second linear combination of signals being chosen to reduce an entropy measure for a difference between the second selected signal and the second linear combination of signals, wherein the difference between the second selected input signal and the second linear combination of signals determines a second output signal in the plurality of output signals.

148. (previously presented) The medium as claimed in claim 147, wherein step (ii) comprises generating a first output signal that represents the difference between the first selected signal and the first linear combination of signals, and step (iv) comprises generating a second output signal that represents the difference between the second selected signal and the second linear combination of signals.

149. (previously presented) The medium as claimed in claim 148, wherein the first output signal and the second output signal are generated by primitive matrix quantisers.

150. (previously presented) The medium as claimed in claim 147, wherein the second linear combination is a linear combination of signals that excludes the first selected input signal.

151. (previously presented) The medium as claimed in claim 147, wherein the second linear combination is a linear combination of signals that includes the first output signal.

152. (previously presented) The medium as claimed in claim 147, wherein

step (ii) generates a first output signal definition representing the difference between the first selected input signal and the first linear combination of signals;

step (iv) generates a second output signal definition representing the difference between the second selected input signal and the second linear combination of signals;

and wherein the method comprises:

(v) generating the first output signal from the first output signal definition, and generating the second output signal from the second output signal definition.

153. (previously presented) The medium as claimed in claim 152, wherein the first output signal and the second output signal are generated by primitive matrix quantisers.

154. (previously presented) The medium as claimed in claim 147, wherein the method further comprises determining a set of output signals from which a downmix of the input signals can be recovered, wherein at least one of the first combination and the second combination is a linear combination of signals that includes at least one signal in the set of output signals.

155. (previously presented) The medium as claimed in claim 147, wherein steps (i) and (iii) select an input signal for which the absolute magnitudes of the coefficients in the linear combination do not exceed a predetermined limit.

156. (previously presented) The medium as claimed in claim 147, wherein step (i) chooses for the first selected input signal that input signal having a smallest measure of energy, and step (iii) chooses for the second selected input signal that input signal other than the first selected input signal having a smallest measure of energy.

157. (previously presented) The medium as claimed in claim 147, wherein step (ii) applies a first scaling factor to the difference between the first selected input signal and the first linear combination of other input signals to determine the first output signal, and step (iv) applies a second scaling factor to the difference between the second selected input signal and the second linear combination of other input signals to determine the second output signal.

158. (previously presented) The medium as claimed in claim 157, wherein the first scaling factor is equal to +1, –1, +½ or –½ and the second scaling factor is equal to +1, –1, +½ or –½..

159. (previously presented) The medium as claimed in claim 157, wherein step (ii) generates additional least significant bits by application of the first scaling factor having a magnitude less than unity and/or step (iv) generates additional least significant bits by application

of the second scaling factor having a magnitude less than unity, and at least some of the additional least significant bits are provided in an output signal.

160. (previously presented) The medium as claimed in claim 147, wherein the entropy measures are energy.

161. (previously presented) The medium as claimed in claim 147, wherein the entropy measures are derived from energy calculated with a spectral weighting emphasizing the frequency bands that contribute more substantially to a data rate of a compressed output stream of the encoder.

162. (previously presented) The medium as claimed in claim 147, wherein the entropy measures are derived from energy calculated with a spectral weighting substantially as defined by a digital filter $(1 - z^{-1})^n$, where $n = 1, 2$ or 3.